

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-16 (Canceled).

Claim 17 (New): A method for concentrating particles,

- a) placing the particles close to and/or on at least one waveguide of a support;
- b) injecting light radiation into the waveguide, the injecting causing grouping of particles into one or plural clusters on the waveguide; and
- c) concentrating or blocking particles into one or plural stationary clusters.

Claim 18 (New): A method for concentrating particles according to claim 17, wherein the support includes plural waveguides, and the injecting b) leads to formation of plural clusters distributed on one or plural of the waveguides.

Claim 19 (New): A method for concentrating particles, according to claim 17, wherein the light radiation forms one or more stationary waves, to concentrate particles in plural stationary clusters on a same waveguide.

Claim 20 (New): A method according to claim 19, wherein the stationary waves are produced through at least one diffraction grating.

Claim 21 (New): A method according to claim 19, wherein the waveguide forms at least one optical loop, the stationary waves being produced when the radiation passes through the optical loop.

Claim 22 (New): A method according to claim 17, wherein the waveguides join together in at least one concentration point, the injecting b) leading to formation of a single cluster located on the concentration point.

Claim 23 (New): A method according to claim 17, further comprising marking particles before the placing a), to modify their optical index.

Claim 24 (New): A method according to claim 17, wherein the particles are cells or macromolecules or microballs.

Claim 25 (New): A method according to claim 17, wherein the particles are glass balls and/or gold balls.

Claim 26 (New): A method according to claim 17, wherein the radiation is in a spectral range between near ultraviolet and infrared.

Claim 27 (New): A method according to claim 26, wherein the radiation is in a range between visible red and infrared.

Claim 28 (New): A method according to claim 17, wherein the particles are immersed in a liquid.

Claim 29 (New): A method according to claim 29, wherein the liquid is water.

Claim 30 (New): A method according to claim 17, further comprising stopping injecting the light radiation as soon as a cluster is formed.

Claim 31 (New): A particle concentration device comprising:
one or plural waveguides surrounded on both sides by at least two diffraction gratings.

Claim 32 (New): A device according to claim 31, further comprising means for observing the particles and a portion of the one or plural waveguides.